

Application No.: 10/712589

Case No.: 59391US002

Amendments to the Claims:

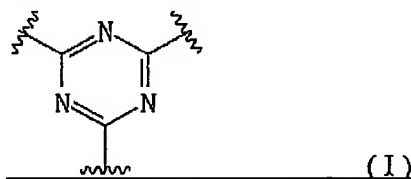
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Canceled)

3. (Currently Amended) A polymer electrolyte membrane comprising a highly fluorinated polymer comprising: a perfluorinated backbone, first pendent groups which comprise sulfonic acid groups, and crosslinks comprising trivalent groups according to the formula:



~~The polymer-electrolyte-membrane according to claim 1~~ wherein said first pendent groups are according to the formula: $-O-CF_2-CF_2-CF_2-CF_2-SO_3H$.

4.-8. (Canceled)

9. (Currently Amended) A method of making a polymer electrolyte membrane comprising the steps of:

- a) providing a highly fluorinated polymer comprising: a perfluorinated backbone, first pendent groups which comprise sulfonyl halide groups, and second pendent groups which comprise nitrile groups;
- b) forming said fluoropolymer into a membrane;
- c) trimerizing said nitrile groups to form crosslinks; and
- d) converting said sulfonyl halide groups to sulfonic acid groups;

~~The method according to claim 7~~ wherein said first pendent groups are according to the formula: $-O-CF_2-CF_2-CF_2-SO_2X$.

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10. (Currently Amended) A method of making a polymer electrolyte membrane comprising the steps of:

- a) providing a highly fluorinated polymer comprising: a perfluorinated backbone, first pendent groups which comprise sulfonyl halide groups, and second pendent groups which comprise nitrile groups;
- b) forming said fluoropolymer into a membrane;
- c) trimerizing said nitrile groups to form crosslinks; and
- d) converting said sulfonyl halide groups to sulfonic acid groups;

wherein said second pendent groups are selected from $-C\equiv N$ and groups according to the formula: $-R^1-C\equiv N$, where R^1 is a branched or unbranched perfluoroalkyl or perfluoroether group comprising 1-15 carbon atoms and 0-4 oxygen atoms; and

The method according to claim 8 wherein said first pendent groups are according to the formula: $-O-CF_2-CF_2-CF_2-CF_2-SO_2X$.

11.-16. (Canceled)

17. (Original) A polymer electrolyte membrane made according to the method of claim 9.

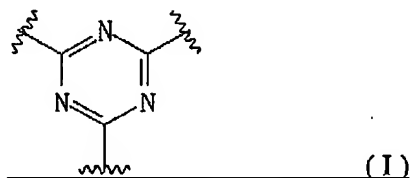
18. (Original) A polymer electrolyte membrane made according to the method of claim 10.

19.-22. (Canceled)

23. (Currently Amended) A polymer membrane comprising a highly fluorinated polymer comprising: a perfluorinated backbone, first pendent groups which comprise groups according to the formula $-SO_2X$, where X is F, Cl, Br, OH, or $-O-M^+$, where M^+ is a monovalent cation, and crosslinks comprising trivalent groups according to the formula:

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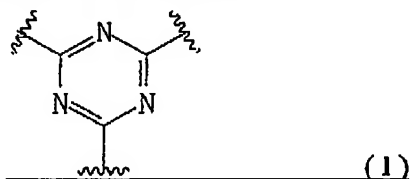
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~~The polymer membrane according to claim 21 wherein said first pendent groups are according to the formula: -O-CF₂-CF₂-CF₂-CF₂-SO₂X.~~

24.-26. (Canceled)

27. (Currently Amended) A polymer comprising a highly fluorinated polymer comprising: a perfluorinated backbone, first pendent groups which comprise groups according to the formula -SO₂X, where X is F, Cl, Br, OH, or -O-M⁺, where M⁺ is a monovalent cation, and crosslinks comprising trivalent groups according to the formula:



~~The polymer according to claim 25 wherein said first pendent groups are according to the formula: -O-CF₂-CF₂-CF₂-CF₂-SO₂X.~~

28. (Canceled)